

# **INCIDENCE OF ACUTE KIDNEY INJURY IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION**

## **ABSTRACT**

### **Aim:**

This study was undertaken in a tertiary care hospital to assess the incidence of Acute Kidney Injury (AKI) in patients admitted with Acute Myocardial Infarction (AMI), to study the co-morbidities associated with acute kidney injury & to study the 5-day in-hospital mortality of MI patients.

### **Subjects and methods:**

This cohort study included 150 patients who were admitted with acute myocardial infarction in intensive care unit. History of diabetes, hypertension and coronary artery disease was obtained from medical records. History of chest pain, electrocardiographs and cardiac biomarkers were used to diagnose acute myocardial infarction. Serum Creatinine was used as a marker of acute kidney injury, which was measured at the time of admission and after 48 hours. These patients were followed up during their hospital stay and 5-day in-hospital mortality was also studied.

**Results:**

Out of 150 patients admitted with MI, 43 patients (28.6%) developed AKI. the mean $\pm$ S.D. of serum creatinine value at the time of admission of AKI patients was 0.9 $\pm$ 0.3 mg/dL, which was same as that of non-AKI patients. And the mean $\pm$ S.D. of serum creatinine value after 48 hours in AKI patients was 1.6 $\pm$ 0.5 mg/dL, which was higher than that of non-AKI group, which was 0.9 $\pm$ 0.2 mg/dL. Patients with AKI had higher mortality rate (30.2%) than the non AKI patients (9.3%). History of diabetes, hypertension and diabetes, personal habits such as smoking and alcohol consumption was not found to be significantly associated with development of AKI.

**Conclusion:**

Acute Kidney injury is an important and common complication occurring in acute MI patients. Development of AKI was associated with poor outcome in terms of 5-day in-hospital mortality, highlighting the importance of monitoring renal parameters during the management of patients with acute myocardial infarction.

**KEYWORDS:** acute kidney injury, kidneys, acute myocardial infarction, mortality